



PATENT ABSTRACTS OF JAPAN

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H01L 21/768**H01L 21/316**(21) Application number: **11253769**(22) Date of filing: **08.09.99**(71) Applicant: **SONY CORP**(72) Inventor: **HASEGAWA TOSHIAKI
IKEDA KOICHI
KITO HIDEYOSHI**(54) **MANUFACTURE OF SEMICONDUCTOR DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a method of manufacturing by using a structure of a mask in which the recycling of a resist film is enabled and using a material having a low permittivity in the lowermost layer of the mask when a wiring structure is formed on an interlayer dielectric including a low organic film having a low permittivity.

SOLUTION: This semiconductor device comprises the step of forming a 3-layer mask of different materials consisting of a first mask 24, a second mask 22, and a third mask 21 from the bottom layer on an interlayer dielectric 12 including first and second low dielectric constant films 13, 15. The second mask 22 is formed with a film of a material that protects a first film 16 which forms the first mask 24 when the third mask 21 is formed, and the first film 16 is formed with a low permittivity material.

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